

PATENT

ATTORNEY DOCKET NO: PROG.003.00USRe

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Reissue application of:

Ralph W. Emerson

Bradford G. Crandall, Jr.

Patent No.: 5,536,501

Issued: July 16, 1996

Reissue Serial No: Not Yet Assigned

Filed: November 24, 1997

For: **USE OF AROMATIC ALDEHYDES  
AS INSECTICIDES AND FOR  
KILLING ARACHNIDS**

) Examiner: Not Yet Assigned  
) (Examiner S. Howard in parent case)

) Art Unit: Not Yet Assigned

) **REISSUE DECLARATION**  
) **(37 C.F.R. 1.172**

**BOX REISSUE PATENT APPLICATION**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

The undersigned is the assignee of 100% of the interest in the above-identified subject application by virtue of an assignment from the inventors, recorded in the Patent and Trademark Office (Reel 7358/Frame 0333). The assignee hereby states and declares that:

1. Assignee has reviewed the evidentiary documents and certifies that, to the best of assignee's knowledge and belief, title is in the assignee identified below.

**CERTIFICATE OF EXPRESS MAILING**

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I hereby certify under 37 C.F.R. 1.10 that this correspondence is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" with sufficient postage on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C., 20231.

Signature: *Lynnda Cunningham*

(Printed Name) LYNDA CUNNINGHAM

2. Assignee does not seek to enlarge the scope of the claims of the original patent and may make the reissue declaration. 37 CFR 1.172

3. Assignee became aware on or about January 28, 1997 that U. S. Patent 5,536,501 is wholly or partly invalid by reason of claiming more than it had a right to claim in the patent; namely, claims 7, 12, 14-16 are overly broad. Assignee became aware of the invalidness of these claims when the references by Lewis *et al.*, Lampman *et al.*, and Metcalf *et al.* (copy enclosed) were reviewed on or about January 28, 1997 during the preparation of a response to the written opinion for a related case, PCT application WO 96/20596

Metcalf *et al.* (*J. Economic Entomology*, 82, 1620-1625 (1989) and *Proc. Natl. Acad. Sci.* 88, 1869-1872 (1991)) described a sticky trap containing cinnamic aldehyde adsorbed on cotton dental wicks that were attached to paper cottons covered with insect adhesive (1622 and 1870). Lewis *et al.* (*Environmental Entomology*, 19, 8-14 (1990) describe a sticky trap baited with a mixture containing trans-cinnamic aldehyde (P. 10). Lampman *et al.* (*J. Economic Entomology*, 80, 1137-1142, (1987) also describe a sticky trap baited with a mixture containing trans-cinnamic aldehyde (1142). The above references describe cinnamic aldehyde adsorbed onto cotton wicks and associated with a sticky trap which renders Claims 7, 12, 14-16 to be too broad. However, the references do not describe other formula (2) compounds associated with a solid support. The references describe cinnamic aldehyde associated with cotton wicks by physical adsorption; the references do not describe cinnamic aldehyde chemically coupled to a solid support (*see* Specification, page 8, lines 7-23). The error relied upon occurred because the Assignee was unaware of these references during prosecution.

Therefore, in the reissue application submitted herewith, Claims 7, 12 and 14-16 have been amended to avoid the references and a new Claim 17 has been added. Claim 7 is amended to exclude cinnamic aldehyde from the composition; and the subject matter of amended Claim 7 is not disclosed by the above references. New Claim 17 is added to recite a composition comprising a compound of formula (2), wherein said compound is coupled to a solid support. The subject matter of new Claim 17 was included in old Claim 7, but is not included in Claim 7 as amended. Therefore, it is necessary to add Claim 17 to cover the excluded subject matter.

4. Assignee became aware on or about November 1, 1996 that the '501 patent is wholly or partly inoperative or invalid by reason of the incorrect specification, namely the use of the generic term "flavonoid". Flavonoid aldehyde is not a correct term as it does not include

formulas (1)-(4). The definition of flavonoid is "a group of aromatic, oxygen-containing heterocyclic pigments widely distributed among higher plants". The flavonoids include the following subgroups: (1) catechin (2) leucoanthocyanidins and flavonones, (3) flavonals, flavones, and anthocyanins; and (4) flavonols. By definition flavonoids do not include compounds of formulas (1)-(4) which are not oxygen containing heterocyclic compounds, therefore flavonoid is not a correct generic term. Aromatic aldehyde is the correct generic term which should have been used; it includes compounds having formulas (1)-(4). The error occurred due to the inventors' infamiliarity with the correct chemical definition of flavonoid. The error was identified by an Examiner in an office action of a related application 08/486,943. Applicants became aware of the error while reviewing that office action to prepare a response. Therefore, Applicants are submitting amendments in this reissue application to change "flavonoid" to "aromatic" in each occurrence.

5. The defects in the '501 Patent occurred through inadvertent error without any deceptive intention on the part of the applicant; this reissue application is filed diligently.

6. Assignee believes that no new matter is introduced in any of the amendments. The amended Claims 7, 12, and 14-16 include an additional limitation. Claim 17 is supported at page 8, lines 19-22.

7. Assignee has reviewed and understands the contents of the reissue application including the amended claims and new Claim 17, and believes that the named inventors are the original and first inventors of the subject matter which is claimed and for which the reissue is sought.

8. Assignee acknowledges its duty under 37 C. F. R. §1.56 to disclose to the United States Patent and Trademark Office all information known to it to be material to the patentability of the claimed invention.

**DECLARATION**

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the application or any patent issued thereon.

Assignee: Proguard Inc.Signature: Typed Name: Bradford G. Crandall, Sr.Title: President & CEOAddress: P. O. Box 550, Suisun City, CA 94585Dated: 12/1/97